

Mineral Industry Surveys

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MOLYBDENUM IN AUGUST 1999

Domestic production of molybdenum in concentrate in August 1999 was about 18% less than that of the previous month and was 26% less than that of August 1998, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were 14,000 metric tons at the beginning of 1999 and 15,300 metric tons at the end of August 1999.

Included in this Mineral Industry Surveys are U.S. production, shipments, and stocks of molybdenum concentrates and materials, plus U.S. consumption, by end use, of molybdenum in the previous and current months; also included are trade data for the previous month. During the current month, Platt's Metals Week

U.S. monthly average price for molybdenum concentrate was \$3.748 per kilogram (\$1.700 per pound). The average price for dealer molybdenum oxide was \$5.950 per kilogram (\$2.699 per pound), and that for dealer ferromolybdenum was \$8.058 per kilogram (\$3.655 per pound).

For the week ending October 29, 1999, Metals Week U.S. average price for molybdenum concentrate was \$3.748 per kilogram (\$1.700 per pound). The average price for dealer molybdenum oxide was \$5.765 per kilogram (\$2.615 per pound), and that for ferromolybdenum was \$8.102 per kilogram (\$3.675 per pound).

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS 1/

(Metric tons, contained molybdenum)

	1998	1999		Year to date
	January-December	July	August	
Production	53,300	3,670	3,000	31,700
Shipments:2/				
Domestic	34,300	3,330	1,100	23,700
Export	17,800	476	1,060	7,940

1/ Data are rounded to three significant digits.

2/ Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM PRODUCTS 1/

(Metric tons, contained molybdenum)

	1998	1999		Year to date
	January-December	July	August	
Gross production	57,200	2,740	3,170	28,000
Internal consumption 2/	23,400	1,480	1,700	13,800
Gross shipments	38,000	2,810	3,290	25,600

1/ Data are rounded to three significant digits.

2/ Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molybdenum 2/	Ammonium and sodium molybdate	Molybdenum scrap	Other	Total
1999, July:						
Steel:						
Carbon	27,000	22,800	--	--	3,190	53,000
High-strength low-alloy	44,100	9,550	--	--	--	53,600
Stainless and heat-resisting	277,000	44,700	--	--	4,760	326,000
Full alloy	131,000	170,000	--	--	2,330	303,000
Tool	52,500	6,690	--	--	1,450	60,700
Total	531,000	253,000	--	--	11,700	796,000
Cast irons (gray, malleable, and ductile iron)	W	31,700	--	--	763	32,500
Superalloys	80,600	W	--	(3/)	101,000	182,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	W	W	--	--	6	6
Other alloys	--	74	--	--	6,290	6,360
Mill products made from metal powder 4/	--	--	--	--	175,000	175,000
Cemented carbides and related products 5/	--	--	--	--	5	5
Chemical and ceramic uses:	--					
Pigments	--	--	1,480	--	--	1,480
Catalysts	77,300	--	W	--	W	77,300
Other	W	--	--	--	215	215
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	25,200	25,200
Other	2,290	7,230	74,200	--	--	83,700
Grand total	692,000	292,000	75,700	--	320,000	1,380,000
Stocks, July 31, 1999	571,000	329,000	3,710	15,500	823,000	1,740,000

See footnotes at end of table.

TABLE 3--Continued
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS 1/

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb- denum 2/	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
1999, August:						
Steel:						
Carbon	24,400	29,100	--	--	3,190	56,700
High-strength low-alloy	35,200	7,910	--	--	--	43,100
Stainless and heat-resisting	221,000	38,100	--	--	4,760	264,000
Full alloy	140,000	177,000	--	--	2,330	319,000
Tool	73,800	8,080	--	--	1,450	83,400
Total	495,000	260,000	--	--	11,700	766,000
Cast irons (gray, malleable, and ductile iron)	W	45,300	--	--	763	46,100
Superalloys	W	W	--	(3/)	99,600	99,600
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	--	2,370	--	--	6,290	8,660
Mill products made from metal powder 4/	--	--	--	--	171,000	171,000
Cemented carbides and related products 5/	--	--	--	--	2	2
Chemical and ceramic uses:						
Pigments	--	--	2,160	--	--	2,160
Catalysts	77,300	--	W	--	W	77,300
Other	W	--	--	--	--	W
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,700	10,700
Other	145,000	6,680	74,200	--	17,100	243,000
Grand total	717,000	314,000	76,300	--	317,000	1,420,000
Stocks, August 31, 1999	565,000	336,000	3,450	14,500	826,000	1,740,000

W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes calcium molybdate.

3/ Included in "Other" of the "Superalloys" category.

4/ Includes ingot, wire, rod, and sheet.

5/ Includes construction, mining, oil and gas, metal working machinery.

TABLE 4
U. S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(Including roasted concentrate), BY COUNTRY 1/

(Kilograms, contained molybdenum)

Country	1998	1999		
		June	July	Year to date
Australia	81,700	--	--	23,300
Belgium	4,470,000	277,000	249,000	3,220,000
Brazil	59,400	1,180	2,950	9,380
Canada	994,000	47,300	57,800	638,000
Chile	6,840,000	238,000	76,600	1,770,000
China	424,000	218,000	93,800	312,000
Germany	460,000	12,100	--	58,800
Italy	448,000	5,500	36,700	164,000
Japan	4,410,000	125,000	61,300	1,240,000
Korea, Republic of	8,660	2,710	30,100	66,600
Mexico	4,220,000	--	--	125,000
Netherlands	12,800,000	952,000	572,000	4,330,000
Spain	119,000	--	--	1,130
Sweden	894,000	12,200	47,800	352,000
United Kingdom	5,480,000	120,000	292,000	2,400,000
Other	247,000	19,200	36,100	123,000
Total	42,000,000	2,030,000	1,560,000	14,800,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 5
U. S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY 1/

(Kilograms, contained molybdenum)

Country	1998	1999		
		June	July	Year to date
Australia	1,800	--	--	382
Canada	549,000	61,800	40,800	277,000
China	133,000	2,520	28,900	145,000
Japan	31,200	6,000	4,970	38,200
Korea, Republic of	1,610	--	--	327
Mexico	91,000	3,830	11,200	36,200
Other	852	--	--	599
Total	809,000	74,100	85,800	498,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS 1/

(Kilograms unless otherwise specified)

Material	1998			1999		
	January-December			July		
	Gross weight	Contained molybdenum	Value (c.i.f.) (thousands)	Gross weight	Contained molybdenum	Value (c.i.f.) (thousands)
Ore and concentrates roasted	8,020,000	5,090,000	\$39,700	764,000	500,000	\$2,940
Ore and concentrates other	2,710,000	1,480,000	7,810	125	125	3
Molybdenum chemicals:						
Oxides and hydroxides	1,180,000	NA	9,610	48,700	NA	358
Molybdates of ammonium	1,240,000	684,000	8,980	69,300	39,100	358
Molybdates (all others)	192,000	113,000	982	35,000	13,100	134
Molybdenum orange	2,050,000	NA	7,950	108,000	NA	431
Mixtures of inorganic compounds	--	--	--	--	--	--
Ferromolybdenum	7,690,000	4,830,000	44,000	818,000	503,000	3,550
Molybdenum powders	110,000	103,000	3,210	15,900	13,400	425
Molybdenum unwrought	145,000	137,000	2,110	--	--	--
Molybdenum waste and scrap	296,000	292,000	4,080	31,400	31,200	448
Molybdenum wire	5,530	NA	500	995	--	85
Molybdenum other	7,850	NA	1,650	274	--	118
Total	23,700,000	12,700,000	131,000	1,890,000	1,100,000	8,850

NA Not available.

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.